

REMARKS

I. Introduction

Claims 7 to 12 are pending in the present application. Claims 7 and 12 have been amended. In view of the preceding amendments and following remarks, it is respectfully submitted that claims 7 to 12 are allowable, and reconsideration is respectfully requested.

Applicant thanks the Examiner for the acknowledgement of the claim for foreign priority, as well as the indication that all certified copies of the priority documents have been received.

II. Objection to Claim 7

The Examiner objected to the preamble of claim 7 for the reason that the term "transmission" is allegedly improper because "the claim is a method claim of detection or receiving CDMA signal not 'transmission.'" However, Applicant notes that the use of the term "transmission" is not improper: the term "transmission" in the preamble is used in the broad sense of a transmission process, and as such the term encompasses both sending and receiving. In addition, it is clear that the claim is not mere limited to detection or receiving; instead, the first step in the body of the claim recites "transmitting a CDMA-coded data signal between a transmitter and a receiver." Therefore, the use of the term "transmission" in the preamble of claim 7 is appropriate, and it is respectfully requested that the objection be withdrawn.

III. Rejection of Claims 7 and 12 Under 35 U.S.C. §112, First Paragraph

Claims 7 and 12 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully submits that claims 7 and 12 are in compliance with 35 U.S.C. § 112, first paragraph, for the following reasons.

Regarding claims 7 and 12, the Examiner contends that "the specification, while being enabling for 'using generator,' . . . does not reasonably provide enablement for 'generator a, b.'" In particular, the Examiner contends that Applicant "fails to described what kind of generator or what is the relationship between those generator and despreader E1 . . . En and how those generators produce suitable code sequence mask for despreaders E1 . . .

En.” Initially, Applicant notes that neither claim 7 nor claim 12 uses the term “generator a, b.” Furthermore, claims 7 and 12 have been amended to recite “each of the hierarchical CDMA codes being formed from a mother code by Kronecker multiplication using at least one generator, wherein a spreading factor for the mother code is smaller than a spreading factor for a corresponding hierarchical CDMA code; detecting data corresponding to the mother code of at least one of the codes; [and] despread the detected data by inverse Kronecker multiplication using the at least one generator.” The amended features are fully supported by the original figures and the specification, e.g., at p. 4, l. 11-17 (in conjunction with Fig. 1), and p. 4, l. 35 – p. 5, l. 19 (in conjunction with Fig. 2).

For at least the foregoing reasons, Applicant respectfully submits that claims 7 and 12 are in compliance with the requirements of 35 U.S.C. § 112, first paragraph.

IV. Rejection of Claims 7 and 12 Under 35 U.S.C. §112, Second Paragraph

Claims 7 and 12 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7 and 12 were rejected for their use of the term “sufficient.” While Applicant does not necessarily agree with this rejection, to facilitate matters, claims 7 and 12 have been amended to delete the term “sufficient.”

For at least the foregoing reasons, Applicant respectfully submits that claims 7 and 12 are in compliance with the requirements of 35 U.S.C. § 112, second paragraph.

V. Rejection of Claims 7 and 12 Under 35 U.S.C. § 102(b)

Claims 7 and 12 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,748,687 (“Ozluturk”). Applicant respectfully submits that claims 7 and 12 are not anticipated by the applied reference, for at least the reasons set forth below.

To anticipate a claim under § 102(b), a single prior art reference must identically disclose each and every claim element. See Lindeman Maschinenfabrik v. American Hoist and Derrick, 730 F.2d 1452, 1458 (Fed. Cir. 1984). If any claimed element is absent from a prior art reference, it cannot anticipate the claim. See Rowe v. Dror, 112

F.3d 473, 478 (Fed. Cir. 1997). Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claim invention, arranged exactly as in the claim. Lindeman, 703 F.2d 1458 (Emphasis added). Additionally, not only must each of the claim limitations be identically disclosed, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the inventions of the rejected claims, as discussed above. See Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986). To the extent that the Examiner may be relying on the doctrine of inherent disclosure for the anticipation rejection, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Amended claim 7 recites, in relevant parts, a “data transmission method” including the steps of: “transmitting a CDMA-coded data signal between a transmitter and a receiver . . . using hierarchical CDMA codes, each of the hierarchical CDMA codes being formed from a mother code by Kronecker multiplication using at least one generator, wherein a spreading factor for the mother code is smaller than a spreading factor for a corresponding hierarchical CDMA code”; “despreading the detected data by inverse Kronecker multiplication using the at least one generator”; and “repeating the despreading step” unless “data has been despread to the extent that received data is produced.” Amended device claim 12 recites substantially similar features as the above-recited features of claim 7. In contrast to claims 7 and 12, however, Ozluturk clearly does not disclose or suggest forming a hierarchy of CDMA codes from a mother code using at least one generator, where the spreading factor for the mother code is smaller than a spreading factor for a corresponding hierarchical CDMA code. In addition, Ozluturk clearly does not suggest using Kronecker multiplication to form such codes from a mother code and transmitting a data stream using such codes, let alone suggest despreading data using a generator and inverse Kronecker multiplication. Finally, nothing in Ozluturk discloses or suggests repeating such a spreading step multiple times.

For at least the foregoing reasons, claims 7 and 12 are not anticipated by Ozluturk.

VI. Rejection of Claims 8 and 9 Under 35 U.S.C. §103(a)

Claims 8 and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,748,687 (“Ozluturk”), in view of U.S. Patent No. 5,920,552 (“Allpress”). Applicant respectfully submits that claims 8 and 9 are not rendered obvious by the applied references, for at least the reasons set forth below.

In rejecting a claim under 35 U.S.C. §103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art references must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Claims 8 and 9 ultimately depend from claim 7. As explained above, Ozluturk does not teach or suggest all of the features of claim 7. Since Allpress fails to remedy the deficiencies of Ozluturk as applied against claim 7, i.e., nothing in Allpress teaches or suggests the features of claim 7 not taught or suggested by Ozluturk, claims 8 and 9 are not rendered obvious by the combination of Ozluturk and Allpress.

VII. Rejection of Claims 10 and 11 Under 35 U.S.C. §103(a)

Claims 10 and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,748,687 (“Ozluturk”), in view of U.S. Patent No. 5,550,809 (“Bottomley”). Applicant respectfully submits that claims 10 and 11 are not rendered obvious by the applied references, for at least the reasons set forth below.

Claims 10 and 11 ultimately depend from claim 7. As explained above, Ozluturk does not teach or suggest all of the features of claim 7. Since Bottomley fails to remedy the deficiencies of Ozluturk as applied against claim 7, i.e., nothing in Bottomley teaches or suggests the features of claim 7 not taught or suggested by Ozluturk, dependent claims 10 and 11 are not rendered obvious by the combination of Ozluturk and Bottomley.

CONCLUSION

It is therefore respectfully submitted that the pending claims 7-12 are allowable. All issues raised by the Examiner have been addressed, and an early and favorable action on the merits is solicited.

Respectfully submitted,

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